



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,880	02/22/2002	Rosario Maggio	34051	6025
116	7590	01/21/2005	EXAMINER	
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			DEL SOLE, JOSEPH S	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,880

Applicant(s)

MAGGIO ET AL.

Examiner

Joseph S. Del Sole

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-24 is/are allowed.
- 6) ☒ Claim(s) 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 14-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1722

4. Claims 12-13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geus et al (5,460,500) in view of Trimble et al (5,397,413).

Geus et al ('500) teach a machine for making a nonwoven web having a drawing assembly (Fig 1, #4) for drawing filaments which pass therethrough with air; a diffuser (Fig 1, #5) having an inlet zone formed by a convergent nozzle (Fig 1, the top half of #5) and a divergent nozzle (Fig 1, the bottom half of #5) connected to the convergent nozzle for opening drawn filaments which pass therethrough into opened filaments; and a receiving belt (Fig 1, #6) for receiving the filaments; wherein a slot (Fig 1, #12) is formed between the drawing assembly and the diffuser for deliver of a flow of air onto the filaments, the slot opening to ambient air for intake of air by a venturi effect produced in the divergent nozzle by air passing therethrough with the drawn filaments (col 4, line 62 - col 5, line 1); and the drawing assembly includes a drawing slot outlet from which the drawn filaments are emitted (Fig 1), the drawn filaments being received in the diffuser inlet zone (Fig 1), and the slot delivers the flow of air at the drawing slot outlet (Fig 1).

Geus et al ('500) fail to teach a rail for electrostatically charging the opened filament to form charged filaments.

Trimble et al teach a rail (Fig 2, #18) for electrostatically charging filaments before they are deposited on the receiving belt for the purpose of causing the filaments to repel one another, separate and spread apart such that they are randomly deposited on a belt (col 5, lines 27-37).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Geus et al ('500) with a rail as taught by Trimble et al because it enables a random deposition of filaments on the belt.

The Examiner notes that the limitations "said convergent and divergent nozzles slowing the passing filaments to enhance spreading of the filaments by the electrostatically charging and thereby cooperatively obtaining an improved spreading of the filaments and a reduced rebound phenomena of filaments on said receiving belt" and "to reduce the air speed and the speed of the passing filaments" are process limitations that do not structurally further limit the apparatus beyond that which is elsewhere in claims 12, 13 and 25; the limitations merely serve to describe the processes resulting from the structure claimed.

Allowable Subject Matter

5. Claims 14-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest a machine with a drawing assembly, diffuser, electrostatically charging rail and receiving belt and further having **a)** a slot extending through the diffuser and opening into the divergent nozzle for injection therein of air by venturi effect; **b)** the electrostatically charging rail located upstream from the divergent nozzle.

Response to Amendment

7. The applicant's replacement specification is accepted and has been entered.
8. The Examiner notes that the affidavit has not been properly submitted as a 37 CFR 1.132 affidavit. However, the examiner has reviewed the statements therein.

Response to Arguments

9. Applicant's arguments filed 12/21/04 have been fully considered but they are not persuasive.

The applicant argues that the combination of a divergent nozzle, electrostatic charging, and a slot between the drawing assembly and diffuser for deliver of air by a venturi effect is not obvious.

The examiner disagrees. The motivation for combination had been stated in the previous 103 rejection and is repeated above. The examiner notes that the motivation statement has not been argued.

The applicant argues that the improvements achieved with the invention are unexpected and evidence the patentability of the claimed arrangement; such being shown by the test results of the Guichon Declaration. The applicant argues that all three elements tested: divergent zone, electrostatic charging and the venturi effect are necessary to provide the unexpected results and that an inspection of separate tests eliminating each element do not demonstrate an additive affect suggesting their combination.

The Examiner disagrees. As demonstrated, test 2 resembles the conditions of the apparatus of primary reference Geus. However, tests 3 and 4 demonstrate results

Art Unit: 1722

from using electrostatic charging. Test 3 improves the average MD gained from test 2.

Test improves the holes/cloudiness gained from test 2. Therefore, improved results would not be unexpected. Additionally, as stated previously, Trimble does provide motivation for its combination with the Geus reference. While the degree of the results may be surprising, different results would not be unexpected and thus with the motivation of Trimble the combination is obvious.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Benjamin Utech, can be reached at (571) 272-1137. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).



J.S.D.
January 12, 2005